TOFU 18.05.82 E17 A41 H04 J04 · 15 8199-714-A 84-003495/01 18.05.82-JP-082388 (21.11.83) B01j-29/28 C01b-33/28 C07c-01/20 TOA NENRYO KOGYO KK Modified zeolite for hydrocarbon prodn. - obtd. by ion-exchanging monoclinic aluminosilicate to obtain lower olefin(s) e.g. ethylene,

propylene in high yield

A modified zeolite (1) is claimed, prepd. by ion-exchanging a monoclinic aluminosilicate (II) which has the compsn. (expressed as oxide mole ratios). C84-001460

0.8 - 1.5 M_2/nO , Al_2O_3 , 10-100SiO₂.ZH₂O

(in which M is at least one metal cation; n is valency of M; and Z is 0-40); and the X-ray diffraction pattern given in Table I; at least part of M being opt, substd. by an ion-exchange with IIA or IIB metal cpd. (III).

A(1-D13) E(10-J2C, 31-P2) H(4-E, 4-F2E) J(4-E4) N(6-A)

200

	Table 1 relative
lattice plate	strength
distance d (A)	s.
11.2 1 0.2	S .
10.1 ± 0.2	w .
7.5 T 0.13 6.03 ± 0.1	M. V.S.
3.86 ± 0.05	S.
3.82 ± 0.05	S.
3.72 ± 0.05	S.
3.64 ± 0.05	ahed of converting hydrocarbon

Also claimed is a method of converting hydroca using (I).

USES/ADVANTAGES

Catalytic activity of (I) degrades little, so that lower olefins, e.g., ethylene, propylene, are obtd. selectively olefins. at high yield.

DETAILS

M is a cation pref. selected from Li, Ba, Ca and Sr. (III) is at least one Mg, Ca or La cpd.

The hydrocarbons converted in the process are <4C alcohols or ethers; e.g. methanol, ethanol, dimethylether, etc. Reaction is at 0.1-50 atm. and 275-550°C. (-ppRHDwgNo0/0).

> Equivalents: J91039970-B